

CLIMATOLOGICAL DATA FOR MAY, 1912.

DISTRICT NO. 9, COLORADO VALLEY.

FREDERICK H. BRANDENBURG, District Editor.

GENERAL SUMMARY.

PRECIPITATION.

There was more than the usual activity in storm movement, and in this respect the month resembled April rather than the average May. The month was cold, especially the first half, thus adding to the long drawn out period of low temperature, for since the beginning of October every month except February has been colder than the normal. Advantage and disadvantage have resulted from this prolonged period of cold. Sustained cold till late in the spring delayed the general blooming of fruits until the season was too far advanced for damaging frosts. On the other hand, the absence of the usual warm spells during the early part of spring retarded the melting of snow in the upper part of the drainage system. The run-off, therefore, was correspondingly greater with the warmer weather of the last decade, resulting in freshets in the central part of the drainage basin before the close of the month, and the prospect for a similar state of affairs later in the more northerly part of the basin. The trunk stream draining this entire area will be severely taxed to carry the volume.

TEMPERATURE.

The mean of the 146 stations reporting was 58° , or 1.3° below the normal. The mean for May, 1911, was 60.2° . The highest monthly mean was 78.9° , at Aztec, Ariz., and the lowest, 28° , at Corona, Colo. The first 10 days were colder than the normal in the southern part of the district, but in the central and northern parts the cold continued until the middle of the month.

From the 21st to the 27th temperatures were below the normal in Arizona, but the succeeding days were much warmer than the normal. It was warm in the central part of the district from the 17th to the 21st. The highest temperatures occurred generally on the 29th. On this date a reading of 100° or higher was noted at several stations in western New Mexico and at a majority of the stations in Arizona. The lowest temperatures practically all occurred in the first half of the month, principally on the 3d, 4th, 5th, or 14th. Freezing temperature occurred at all stations in Wyoming and at all but 2 in Colorado, 4 in eastern Utah, and 2 in New Mexico. Freezing also occurred at about one-third of the stations in Arizona.

Details of temperature are summarized in the following table:

Areas of States in district No. 9.	Temperature.					
	Mean.	Departure from normal.	Highest.	Station.	Lowest.	Station.
Western Wyoming...	42.9	-0.6	82	Green River.....	13	Willow Creek Cabin.
Western Colorado...	48.6	-1.5	92	Cortez and Delta...	2	Silverton (near).
Eastern Utah.....	54.5	-1.4	99	Springdale.....	10	Strawberry Tunnel (east).
Western New Mexico.	57.3	-1.6	100	Cambray, Cliff, and Rodeo.	15	Luna.
Arizona.....	66.7	-1.2	110	Mariocopa and Red- rock.	16	Alpine and Flagstaff No. 1.
Southeastern Nevada.	63.4	.....	101	Logan.....	29	Caliente.

The average for the 195 stations reporting was 0.49 inch, or 0.15 inch below the normal. The average for May, 1911, was 0.19 inch. There was a deficiency on all drainage areas except the Gila, where general showers and thunderstorms occurred on the 8th and 9th. The amount of rainfall that occurred in these showers was unusual for the month of May over much of the southern half of Arizona, and at some stations unprecedented. In Colorado and Utah the first half of the month was the wet period; precipitation also occurred on the last 2 days. The greatest monthly amount was 5.16 inches at Corona, Colo., while none occurred at 1 station in western Colorado, 4 in eastern Utah, 7 in western New Mexico, 7 in Arizona, and 1 in southeastern Nevada. Monthly snowfalls of 10 inches or more occurred at 1 station in Wyoming and at 13 stations in Colorado. The maximum fall, 48 inches, occurred at Redcliff, Colo.

The average precipitation and departures from the normal on the different watersheds are given in the following table:

Watershed.

Green.		Grand.		San Juan.		Little Colorado.		Gila.		Mimbres.		Colorado proper.	
Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.	Departure.
0.88	-0.36	1.06	-0.27	0.19	-0.71	0.04	-0.51	0.22	+0.12	0.02	-0.16	0.27	0.00

The average number of days with 0.01 inch or more precipitation was 7 in western Wyoming, 5 in western Colorado, 3 in eastern Utah, 1 each in western New Mexico and Arizona, and no day in southeastern Nevada. For the district as a whole the average was 3 days.

MISCELLANEOUS.

The amount of sunshine reported was as follows: Grand Junction, 69; Durango, 78; Phoenix, 94; and Yuma, 89 per cent, of the possible.

The relative humidity was much below the average in the central part of the district and above the average in the southern part. The following are the values: Grand Junction, 39; Durango, 39; Phoenix, 34; and Yuma, 42 per cent.

RIVERS.

The prevailing cool weather of the first half of May was reflected in the volume discharged by the streams forming the Colorado, and low stages for the time of year were general in the upper reaches. Farther south the effect of the advancing season on the snowfields was more pronounced, the trunk stream in the vicinity of Needles rising until the 8th, and at Yuma until the 10th. The middle of the month marked the change from falling to rising stages in the tributaries draining high altitudes.

Of these tributaries the Gunnison was the first to carry a volume approaching flood conditions; the Grand followed, but there was no important increase in the discharge of the Green, the season being too backward for rapid melting in the high region drained by the tributaries, the White and Yampa in Colorado and the trunk stream in western Wyoming. The maximum stage at Eagle, on the Eagle, 4.5 feet, occurred on the 31st; at Carbondale, on the Roaring Fork, 5 feet, on the 30th and 31st. On the Gunnison the maximum stage at Sapinero, 18 feet, occurred on the 30th and 31st; at Delta, 11.6 feet, and Grand Junction, 11.2 feet, on the 22d. The Grand, at Fruita, below its junction with the Gunnison, reached the highest point, 13.6 feet, on the 27th. The

San Juan carried a smaller volume than usual, the maximum stage near Farmington, N. Mex., being 7.5 feet on the 31st. The Green, at Elgin, Utah, reached its maximum height, 11.2 feet, on the 30th and 31st. In the Colorado proper the maximum stage occurred on the last day of the month, when the stage at Grand Canyon, Ariz., was 56 feet; at Topock, near Needles, 19.7 feet, and at Yuma, 25.5 feet. The rise at Grand Canyon was 14 feet in 12 days and at Topock 9.4 feet in 10 days.

The damage done by the Gunnison and its tributaries will reach a large sum, especially on the North Fork. Between Paonia and Grand Junction, Colo., bridges were carried out or seriously weakened, and much valuable farm land was cut to pieces.

TABLE 1.—Climatological data for May, 1912. District No. 9, Colorado Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing direction of wind.	Observers.				
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days with 0.01 inch or more.	Number of partly cloudy days.	Number of clear days.					
<i>Wyoming.</i>																						
Battle Mountain.	Carbon.	7,300	13	42.0	-0.6	75	29	20	2	42	0.98	-0.28	0.50	5.0	3	10	19	2	nw.	U. S. Forest Service.		
Daniel.	Uinta.	6,740	3	42.0	-0.6	75	29	20	2	42	0.98	-0.28	0.59	2.3	8	12	12	7	w.	J. N. Vandervort.		
Eden.	Sweetwater.	6,577	3	44.7	-	80	29	16	14	51	1.34	-	1.15	-	6	14	5	5	w.	Eden Valley L. & I. Co.		
Green River.	do.	6,083	7	46.2	-	82	29	19	14	44	2.86	-	0.47	8.0	4	13 ^c	11 ^c	4 ^c	nw.	Geo. H. Maxom.		
Pinedale.	Fremont.	7,167	6	42.4 ^a	-	78 ^a	29	17 ^a	6	49 ^c	0.69	-	0.47	12.0	12	13 ^d	14 ^d	14 ^d	nw.	U. S. Forest Service.		
Willow Creek Cabin.	do.	7,500	3	39.4 ^d	-	72 ^d	29	13 ^d	13	41 ^d	2.40	-	0.50	-	-	-	-	-	nw.	Do.		
<i>Colorado.</i>																			.	.		
Ashcroft.	Pitkin.	9,483	10	41.0	-0.7	74	29	6	14	45	1.48	-0.30	0.71	16.0	7	2 ^b	19 ^b	8 ^b	nw.	Dan McArthur.		
Breckenridge.	Summit.	9,536	23	38.7	-0.3	69 ^b	30	10 ^b	14	43 ^b	1.09	-0.99	0.63	1.0	4	6	21	4	w.	Mrs. J. G. Thompson.		
Buford.	Rio Blanca.	1	-	-	-	-	-	-	-	-	-	-	0.40	0	-	-	-	-	.	Mrs. H. Genier.		
Cascade.	San Juan.	8,900	5	44.5	-	70	29	14	12	51	1.34	-	0.36	-	0.14	4.0	6	22	2	.	San Juan W. & P. Co.	
Cedaredge.	Delta.	6,175	14	53.4	-2.7	85	29	38	5	44	0.68	-0.26	0.22	4.0	5	8	21	2	.	Harry A. Cobbett.		
Chromo.	Archuleta.	7,500	6	46.6	-	90	28	10	16	63	0.10	-	0.10	1.0	1	26	2	3	sw.	Lawrence Nolan.		
Cochetopa.	Saguache.	9,088	3	-	-	-	-	-	-	-	-	-	0.23	-	0.07	1.5	4	10	v.	Bessie McDonough.		
Colbran.	Mesa.	6,000	19	51.6	-1.9	81	29	28	5 ^f	38	0.99	-0.42	0.30	0	7	15	13	3	sw.	A. A. Wood.		
Columbine.	Routt.	8,766	2	-	-	-	-	-	-	-	-	-	0.71	-	0.28	11.0	4	8	20	3	sw.	Mrs. M. A. Caron.
Cumbine Ranch.	Delta.	6,925	2	-	-	-	-	-	-	-	-	-	0.83	-	0.40	0	4	11	11	9	s.	George W. Wade.
Corona.	Grand.	11,660	5	28.0	-	50	25 ^f	8	14	30	5.16	-	1.15	34.0	9	T.	0	0	13	3	v.	U. S. Weather Bureau.
Cortez.	Montezuma.	6,100	1	53.9	-	92	18	19	14	63	T.	-	-	-	-	-	-	-	-	Wm. C. Syrett.		
Craig.	Moffat.	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Joseph F. Haubrich.		
Crawford (near).	Montrose.	6,600	2	50.6	-	78	29	23	6	37	0.73	-	0.32	6.0	10	16	9	6	sw.	C. W. Roe.		
Crested Butte.	Gunnison.	8,867	2	44.6	-	70	29	14	3	44	1.10	-	0.75	11.5	3	11	9	11	sw.	Charles L. Ross.		
De Beque.	Mesa.	4,935	2	57.4 ^d	-	89 ^d	29	32 ^d	14	47 ^d	0.89	-	0.33	0	6	12 ^d	64	9 ^d	w.	H. M. Quigley.		
Delta.	Delta.	4,965	22	57.6	-1.4	92	29	26	5	52	0.52	-0.11	0.30	0	3	21	7	3	sw.	E. M. Getts.		
Dillon.	Summit.	8,800	2	42.8	-	67	18	15	14	42	1.91	-	0.90	13.0	3	8	10	13	r.	Harry T. Hamilton.		
Durango.	La Plata.	6,534	17	52.4	-2.6	83	29	24	5	42	0.08	-1.06	0.03	T.	4	9	18	4	rw.	U. S. Weather Bureau.		
Eureka.	San Juan.	10,000	5	-	-	-	-	-	-	-	-	-	0.67	-	0.38	7.0	3	20	0	11	s.	San Juan W. & P. Co.
Fraser.	Grand.	8,560	3	37.2	-	69	29	4	14	45	1.28	-	0.40	10.5	6	1	10	20	w.	L. D. C. Gaskill.		
Fruita.	Mesa.	4,510	13	56.4	-2.5	87	29	20	5	50	0.57	-0.37	0.15	0	4	14	12	5	sw.	J. B. Willsea.		
Glade Park.	Gladstone.	7,000	1	-	-	-	-	-	-	-	-	-	0.64	-	0.25	2.0	8	11	18	2	sw.	A. F. Terrill.
Grand Junction.	San Juan.	10,400	5	-	-	-	-	-	-	-	-	-	0.35	-	0.21	T.	2	7	7	17	se.	San Juan W. & P. Co.
Glenwood Springs (near).	Garfield.	5,823	14	52.5	-1.3	80	29	26	13	47	0.22	-0.60	0.10	0	3	22	5	4	w.	E. A. O'Neil.		
Grandlake.	Mesa.	4,608	21	59.4	-2.2	87	29	33	5	35	0.38	-0.54	0.20	0.2	6	9	12	10	sw.	U. S. Weather Bureau.		
Grand Valley.	Garfield.	8,153	4	-	-	-	-	-	-	-	-	-	2.22	-	0.84	18.0	5	15	9	7	sw.	Mrs. Bell Kauffman.
Gunnison.	Garfield.	5,089	20	54.6	-2.7	87	29	30	1 ^f	51	0.64	-0.50	0.22	0	8	9	12	10	sw.	David Evans.		
Hesperus (near).	La Plata.	7,670	19	48.4	+0.6	80	30	22	5 ^f	57	0.38	-0.27	0.10	1.0	7	15	15	1	sw.	Clarence Adams.		
Horseshy.	Montrose.	7,610	11	-	-	-	-	-	-	-	-	-	0.10	-	0.73	0.07	5	2	12	12	sw.	G. F. Snyder.
Ironton.	Routt.	8,700	2	-	-	-	-	-	-	-	-	-	0.23	-	0.08	4.4	7	15	14	2	sw.	Lawrence J. Finch.
Ladore.	Moffat.	10,000	2	-	-	-	-	-	-	-	-	-	0.35	-	0.21	T.	2	7	7	17	se.	Mrs. Amanda E. Foley.
Lake City.	Hinsdale.	8,686	7	45.8	-	75	29	16	5	40	0.44	-	0.20	5.4	8	11	10	10	s.	Mrs. Geo. C. Bassett.		
Lay.	Moffat.	6,190	18	47.6	-2.3	82	29	19	14	52	0.74	-	0.52	0.14	3.0	7	8	6	17	sw.	J. F. Maurer.	
Mancos.	Montezuma.	6,960	13	50.2	-1.1	82	29	20	4 ^f	46	0.31	-	0.05	0.20	0	3	15	15	1	sw.	A. G. Wallihan.	
Marble.	Gunnison.	7,951	3	45.8	-	76	29	17	14	42	2.14	-	0.78	16.0	7	19	8	4	ne.	B. M. Krumanitzky.		
Marshall Pass.	Saguache.	10,846	10	-	-	-	-	-	-	-	-	-	0.54	-	0.36	6.0	2	21	2	8	ne.	F. E. Morse.
Meeker (near).	Rio Blanca.	6,182	20	48.2	-3.3	80	29	21	14	48	1.00	-	0.37	0.29	1.5	9	12	11	8	sw.	Wm. L. Williams.	
Monrose.	Routt.	5,811	23	57.0	+2.3	89	30	28	5	44	0.62	-	0.09	0.19	2.0	7	19	6	6	sw.	T. Baker.	
Nast.	Pitkin.	7,953	2	41.4	-	74	29	15	14	49	0.90	-	0.38	13.0	4	15	11	5	w.	U. S. Reclamation Service.		
Pagoda.	Routt.	6,500	21	-	-	-	-	-	-	-	-	-	0.70	-	0.25	2.0	4	15	8	8	w.	Arthur Hanthorn.
Pagosa Springs.	Archuleta.	7,108	5	48.2	-	84	29	19	5 ^f	56	0.33	-	0.21	2.9	3	14	16	1	sw.	Mrs. J. W. Scott.		
Palisades.	Mesa.	4,729	1	60.0	-	89	18 ^f	33	4	38	0.50	-	0.50	1.00	48.0	11	15	5	11	sw.	E. T. Walker.	
Paonia.	Delta.	5,694	17	56.0	-2.6	89	25	30	14	41	0.82	-0.49	0.40	3.0	3	8	22	1	sw.	Elmer Hiatt.		
Parshall.	Grand.	3	-	-	-	-	-	-	-	-	-	-	0.70	-	0.25	2.0	4	15	8	8	sw.	J. M. Underwood.
Pitkin.	Gunnison.	9,500	3	-	-	-	-	-	-	-	-	-	0.08	-	0.08	0	6	12	7	7	sw.	F. A. Field.
Pyramid.	Rio Blanca.	1	45.2	-	-	-	-	-	-	-	-	-	0.70	-	0.25	2.0	4	15	8	8	sw.	Mrs. Maggie Cammann.
Rangely.	do.	5,050	13	53.7	-0.4	90	29	23	14	55	0.50	-	0.26	0.30	0	2	15	0	6	w.	E. B. Egry.	
Redcliff.	Eagle.	8,665	19	-	-	-	-	-	-	-	-	-	3.65	+2.40	1.00	48.0	11	15	5	11	sw.	J. H. McGuire.
Rico.	Dolores.	8,824	10	-	-	-	-	-	-	-	-	-	0.13	-1.61	0.08	0.5	2	21	6	4	s.	Dorothea Greiner.
Rifle.	Garfield.	5,437	1	54.6	-	85	29	26	14	45	0.28	-	0.08	0	6	12	7	7	sw.	Clinton B. Smith.		
River Portal.	Montrose.	6,570	6	-	-	-	-	-	-	-	-	-	0.47	-	13.9	11	19	6	6	w.	Hermann Eichle.	
Sapinero (near).	Gunnison.	8,125	9	44.6	-	74	29	18	5	43	1.81	-	0.47	-	0.20	0	1	19	6	6	w.	U. S. Reclamation Service.
Shoshone.	Garfield.	6,110	2	-	-	-	-	-	-	-	-	-	0.47	-	0.20	0	1	19	6	6	w.	W. F. Irving.
Silverton (near).	San Juan.	9,400	5	31.3	-	68 ^b	22	26	5	50 ^b	0.20	-	0.20	0	9	12	11	11	sw.	Central Colorado Power Co.		
Spruce Lodge.	Grand.	9,600	4	-	-	-	-	-	-	-	-	-	2.95	-	1.20	40.5	9	18	11	11	w.	San Juan W. & P. Co.
Steamboat Springs.	Routt.	6,683	9	47.2	-	79 ^f	29	20	23	52 ^f	1.27	-	0.50	4.0	8	16	10	5	sw.	H. J. Wills.		
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TABLE 1.—*Climatological data for May, 1912. District No. 9—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit							Precipitation, in inches							Sky.	Prevailing wind direction.	Observers.				
				Departure from the normal.			Mean.	Highest.	Date.	Lowest.	Greatest daily range.	Total.	Departure from the normal.			Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.			
				High.	Date.	Low.		Highest.	Date.	Lowest.			Total.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.					
<i>Utah—Continued.</i>																								
La Sal.	San Juan.	7,000	9	50.4°	.....	80	29	23	6	36	0.02	.....	0.02	0.2	1	11 ^b	10 ^b	8 ^b	.....	.....	Gertrude W. Carpenter.
Loa.	Wayne.	7,000	19	.....	.....	80	29	20	13 ^t	45	2.86	.....	0.64	8.5	9	8	19	4	.....	.....	W. S. McClellan.
Manila.	Uinta.	6,225	2	47.4	.....	80	29	33	5	50	0.98	+0.22	0.51	0	5	7	17	7	.....	.....	Daniel M. Nelson.
Moab.	Grand.	4,000	22	61.6	-2.3	93	29	50	5	50	0.98	.....	.....	.....	.....	.....	.....	.....	.....	.....	Henry Crouse.
Monticello.	San Juan.	7,545	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.60	0.35	2	.....	.....	.....	.....	.....	Geo. F. Barton.
New Harmony.	Washington.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.25	0.20	0	2	.....	.....	.....	.....	Geo. F. Prince.
Orderville.	Kane.	6,660	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. A. Porter.
Pine Valley.	Washington.	6,000	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mason Gardner.
Price.	Carbon.	5,557	1	56.0	.....	87	17 ^t	26	5	45	0.00	.....	0.00	0	0	22	7	2	se.	.....	R. H. Thompson.
Ranch.	Kane.	6,700	10	48.0	.....	80	28	22	3 ^t	46	0.10	.....	0.10	0	1	19	12	0	w.	.....	J. W. Seaman.
San Rafael.	Emery.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. C. Foy.
St. George.	Washington.	2,880	25	64.2	-2.6	96	29	32	3 ^t	53	0.22	-0.16	0.14	0	2	14	14	3	.....	.....	A. B. Ballantyne.	
Scofield.	Carbon.	7,625	4	41.8	.....	74	29	16	14	47	1.15	.....	0.30	2.7	10	18	11	1	s.	.....	B. Newren.
Springdale.	Washington.	3,500	4	62.8	.....	99	29	32	3 ^t	50	0.00	.....	0.00	0	0	19	3	9	.....	.....	Hattie Wood.
Strawberry Tunnel—east.	Utah.	4	39.0	.....	73	29	10	5	47	0.41	.....	0.12	.....	5	12	12	7	.....	.....	U. S. Reclamation Service.	
Sunnyside.	Carbon.	5,280	7	.....	.....	74	18	25	4	40	0.58	.....	0.25	3.5	5	16	5	10	w.	.....	A. Rader.
Teasdale.	Wayne.	7,000	2	48.4	.....	86	29	32	3	34	0.54	.....	0.21	T.	4	17	11	3	sw.	.....	Henry Cullum.
Thompsons.	Grand.	5,150	1	58.0	.....	86	29	32	3	34	0.54	.....	0.21	T.	0	11	13	7	nw.	.....	A. M. Starmont.
Tropic.	Garfield.	7,000	15	52.3	+0.2	83	29	29	5	42	T.	-0.71	T.	T.	0	11	19	1	sw.	.....	E. P. Bolton.		
Trottcreek Ranger.	Uinta.	9,200	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Forest Supervisor.	
Vernal.	do.	5,050	15	52.4	-4.1	84	18 ^t	22	5	43	0.84	-0.13	0.35	0	7	22	5	4	.....	.....	S. P. Trim.	
White Rocks.	do.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.64	0.35	0	9	16	6	sw.	.....	C. F. Keil.
Woodside.	Emery.	4,645	1	56.7	.....	86	18 ^t	29	6	46	0.31	.....	0.22	2.0	2	18	0	13	w.	.....	D. P. Adams.
<i>New Mexico.</i>																					.....		
Alma.	Socorro.	5,500	15	59.0	-2.8	94	29	23	4	57	0.08	-0.25	0.05	0	2	8	21	2	sw.	.....	M. A. Balke.		
Aragon.	do.	5,856	5	54.2	.....	84	29	21	4	45	T.	.....	0	0	19	11	1	sw.	.....	John R. Milligan.	
Aztec.	San Juan.	5,590	12	0.57	T.	T.	0	12	18	1	sw.	Dr. T. J. West.		
Bergers Ranch.	McKinley.	8,000	47.4	.....	.....	83	29	18	4	50	T.	.....	0.21	T.	0	20	11	0	w.	.....	Herman Berger.
Blackrock.	do.	6,500	3	53.7	.....	87	29	23	3	46	0.00	.....	0	0	0	22	6	3	w.	.....	D. Blackwater.
Bloomfield.	San Juan.	5,500	17	56.7	-1.4	92	29	24	4	54	T.	0.48	T.	T.	0	11	19	1	sw.	Fred LeClerc.		
Cambrey.	Luna.	4,215	13	.....	.....	100	29	.....	.....	.....	.....	.....	0.00	-0.11	0	0	0	7	3	w.	Agent So. Pac. R. R.
Cliff.	Grant.	4,470	12	66.4	+2.2	100	29	25	9	47	0.05	-0.06	0.05	0	1	21	5	5	sw.	.....	W. C. Belden.		
Columbus.	Luna.	4,054	3	65.4	96	25	0.15	T.	T.	0	0	31	0	0	w.	Agent E. P. & S. W. R. R.		
Deming.	do.	4,333	35	65.4	.....	98	29	35	6	53	0.00	-0.17	0	0	0	0	0	0	0	.....	Agent So. Pac. R. R.	
Dulce.	Rio Arriba.	6,756	15	48.8	-2.2	85	31	20	20	56	0.13	-0.03	0.13	1.5	1	14	8	9	w.	.....	F. E. James.		
Fort Bayard.	Grant.	6,152	37	60.2	-1.5	88	29	29	4	39	0.02	-0.25	0.02	0	1	27	0	4	w.	.....	U. S. General Hospital.		
Fruitland.	San Juan.	4,800	18	58.3	-1.6	90	29	27	4	49	T.	-0.35	T.	T.	0	0	24	7	0	sw.	C. J. Collyer.		
Gage.	Luna.	4,486	12	61.4	92	19 ^t	32	3	52	0.00	-0.10	0	0	0	0	0	1	1	w.	Agent So. Pac. R. R.		
Gila Planting Station.	Grant.	6,475	1	58.8	.....	87	29	30	4	37	0.05	.....	0.05	0	1	26	5	0	w.	.....	U. S. Forest Service.
G. O. S. Ranch.	do.	8,000	0.15	0.15	0	1	28	1	2	sw.	Victor Culberson.		
Hachita.	do.	4,504	3	.....	.....	84	29	34	5	52	0.00	.....	0.52	0	1	21	8	2	sw.	.....	Agent E. P. & S. W. R. R.
Haynes.	Rio Arriba.	6,600	1	52.2	.....	84	29	21	16	52	0.60	.....	0.60	0	1	21	8	2	sw.	.....	Dr. John R. Haynes.
Hermanes.	Luna.	4,451	3	.....	.....	98	29	35	6	53	0.23	.....	0.15	0	2	25	6	6	w.	.....	Agent E. P. & S. W. R. R.
Lordsburg.	Grant.	4,245	29	64.9	-4.0	98	29	27	4	52	0.06	-0.15	0.06	0	1	24	6	1	w.	.....	Agent So. Pac. R. R.		
Luna.	do.	7,300	7	50.4	.....	83	29 ^t	15	4	53	T.	.....	0.08	0	1	27	4	0	w.	.....	C. B. Martin.
Mimbres.	Grant.	5,007	7	.....	.....	.....	.....	25	4	52	0.08	.....	0.08	0	1	27	4	0	w.	.....	Charles Dennis.
Pinos Altos (near).	do.	7,253	1	.....	.....	.....	.....	19	4	52	0.00	.....	0.08	0	3	17	14	0	nw.	.....	O. L. Scott.
Pratt.	do.	4,415	3	63.9	.....	101	29	33	3	52	0.71	+0.49	0.37	0	2	28	1	0	w.	.....	Agent E. P. & S. W. R. R.	
Redrock.	Grant.	4,150	7	.....	.....	100	29	30	5	50	0.04	-0.03	0.04	0	1	29	2	0	w.	.....	Robt. H. Woods.
Rodeo.	do.	4,118	3	.....	.....	92	29	25	4	46	0.02	.....	0.02	0	0	23	3	1	sw.	.....	Agent E. P. & S. W. R. R.
Silver City.	do.	5,860	1	59.5	.....	.....	.....	.....	.....	.....	.....	.....	0.02	0	1	26	5	0	w.	.....	E. M. Brumback.
<i>Arizona.</i>																					.....		
Allaire Ranch.	Cochise.	4,184	14	.....	.....	80	29	16	4	50	0.35	+ 0.21	0.30	0	2	25	2	4	w.	.....	Thos. Allaire.
Alpine.	Apache.	8,500	2	47.6	.....	80	29	55	9	38	0.01	.....	0.01	0	1	19	9	3	w.	.....	U. S. Forest Service.
Aztec.	Yuma.	492	13	78.9	-1.3	108	29	55	4	48	0.07	+ 0.02	0.07	0	1	25	3	3	w.	.....	Agent So. Pac. Co.		
Benson.	Cochise.	3,523	29	66.0	-8.7	98	29	34	4	48	0.20	+ 0.08	0.20	0	1	27	2	2	w.	.....	Do.		
Bisbee.	do.	5,500	22	63.9	-2.0	89	29	36	10	53	0.06	-0.19	0.06	0	1	24	6	1	w.	.....	Rev. J. G. Pritchard.		
Bowie.	do.	3,750	36	69.5	-1.8	101	29	33	3	52	0.71	+ 0.49	0.37	0	2	28	1	2	sw.	.....	Agent So. Pac. Co.		
Buckeye.	Maricopa.	980	20	73.0	+ 0.6	106	29	41	4	50	0.04	-0.03	0.04	0	0	1	29	2	0					

TABLE 1.—*Climatological data for May, 1912. District No. 9—Continued.*

Stations.	Counties.	Elevation feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.							Sky.	Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
<i>Arizona—Continued.</i>																				
Kingman.	Mohave.	3,326	...	54.0	...	84	29	21	4	46	0.21	- 0.33	0.21	T.	1	19	0	12	sw.	Agent A. T. & S. F. R. R.
Lakeside.	Navajo.	6,500	12	54.0	...	84	29	21	4	46	0.10	+ 0.48	0.10	0	1	18	4	9	w.	Prof. J. Peterson.
Lewis Springs.	Cochise.	4,029	3	75.7	- 4.3	110	29	42	4	35	0.53	+ 0.48	0.53	0	1	24	6	1	sw.	Agent E. P. & S. W. Co.
Maricopa.	Pinal.	1,186	35	75.7	- 4.3	110	29	42	4	35	0.03	+ 0.49	0.02	0	2	21	9	1	sw.	Agent So. Pac. Co.
McNeal.	Cochise.	4,490	2	70.5	- 3.0	103	28	42	3	44	0.55	+ 0.49	0.50	0	2	19	12	0	sw.	Miles McNeal.
Mesa.	Maricopa.	1,244	17	70.5	- 3.0	103	28	42	3	44	0.03	+ 0.03	0.03	0	1	18	10	3	w.	C. L. Diehl.
Mohawk Summit.	Yuma.	538	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	sw.	Agent So. Pac. Co.
Naco.	Cochise.	4,759	3	...	...	...	...	...	...	...	...	T.	T.	0	0	23	6	2	w.	Agent E. P. & S. W. Co.
Natural Bridge.	Gila.	4,990	23	...	...	...	...	...	...	...	0.65	+ 0.13	0.60	0	2	20	10	1	sw.	D. G. Goodfellow.
Oracle.	Pinal.	4,500	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	w.	J. J. Lawson.
Osborn.	Cochise.	4,676	3	...	...	...	...	...	...	...	0.03	...	0.03	0	1	15	16	0	sw.	Agent E. P. & S. W. Co.
Paradise.	do.	5,436	5	60.6	- 0.1	90	29	25	4	51	0.36	...	0.36	0	1	19	12	0	w.	J. C. Hancock.
Parker.	Yuma.	345	18	76.5	+ 0.1	108	28	52	2†	49	0.20	+ 0.06	0.20	0	1	15	16	0	sw.	M. A. Israel, M. D.
Payson.	Gila.	5,550	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	w.	M. McDonald.
Phoenix.	Maricopa.	1,108	17	73.8	- 1.0	101	29	46	4	39	0.58	+ 0.55	0.58	0	2	18	11	2	e.	U. S. Weather Bureau.
Phoenix (1).	do.	1,092	23	72.6	- 1.2	105	29	41	4	48	0.60	+ 0.54	0.60	0	1	21	9	1	w.	G. Acuff.
Phoenix (2).	do.	1,189	4	73.9	...	104	29	45	3†	43	0.38	...	0.33	0	2	25	0	6	sw.	Salt River Valley Nursery.
Pinal Ranch.	Pinal.	4,520	18	...	...	...	...	...	...	...	0.66	+ 0.34	0.48	0	2	...	...	...	w.	Irion & Craig.
Pinto.	Apache.	5,660	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	w.	Mrs. C. F. Henning.
Prescott.	Yavapai.	5,320	46	55.2	- 3.5	85	27	27	3	44	0.69	+ 0.18	0.69	0	1	29	0	2	sw.	J. W. Flinn, M. D.
Quartzsite.	Yuma.	800	5	75.2	...	109	29	46	3	49	0.43	...	0.43	0	1	18	12	1	w.	W. E. Scott.
Redrock.	Pinal.	1,864	4	75.2	...	110	29	44	4	46	0.69	...	0.68	0	2	19	12	0	w.	W. J. Crowell.
Roosevelt.	Gila.	2,175	7	72.0	...	100	30†	51	1†	37	0.36	...	0.36	0	1	21	9	1	w.	U. S. Reclamation Service.
Sacaton.	Pinal.	1,280	5	73.8	...	107	29	42	4	47	0.38	...	0.38	0	1	...	...	...	w.	E. W. Hudson.
St. Johns.	Apache.	5,650	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	w.	A. Shreeve.
St. Michaels.	do.	6,950	24	54.7	+ 1.3	85	29	26	6	48	T.	- 0.63	T.	0	0	16	14	1	sw.	Rev. A. Weber, O. F. M.
Salome.	Yuma.	1,875	5	68.7	...	99	28†	40	3	51	0.37	...	0.20	0	2	19	9	3	sw.	Mrs. M. B. Swartz.
San Carlos.	Gila.	2,456	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	w.	Miss M. A. Bingham.
San Simon.	Cochise.	3,609	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	w.	Agent So. Pac. Co.
Seligman.	Yavapai.	5,219	5	59.6	...	94	28	29	15†	53	0.00	...	0.00	0	0	...	...	...	sw.	Lib. A. T. & S. F. R. R.
Sentinel.	Maricopa.	685	14	76.4	- 2.6	105	29	48	4	45	0.00	± 0.00	0.00	0	0	24	5	2	sw.	Agent So. Pac. Co.
Silverbell.	Pima.	2,650	7	78.7	...	103	30	44	10	35	0.40	...	0.40	0	1	29	0	2	s.	Imperial Copper Co.
Snowflake.	Navajo.	5,644	5	56.9	...	88	28	28	10	51	0.00	...	0.00	0	0	15	14	2	sw.	W. J. Flake.
Springerville.	Apache.	6,862	1	...	...	84	29	...	...	...	0.25	...	0.25	0	1	26	5	0	sw.	U. S. Forest Service.
Supai.	Coconino.	3,200	6	65.7	...	102	29	34	3	49	0.01	...	0.01	0	1	18	10	3	sw.	Mrs. L. B. Symons.
Tempe.	Maricopa.	1,165	8	72.6	...	102	29	44	4	45	0.36	...	0.36	0	1	20	11	0	w.	F. H. Simmons.
Thatcher.	Graham.	2,800	8	69.0	...	105	29	33	4	58	0.04	...	0.04	0	1	21	10	0	w.	Prof. J. H. Larson.
Tombstone.	Cochise.	4,550	16	68.6	+ 0.7	100	29	37	3	41	0.37	+ 0.13	0.33	0	2	26	5	0	w.	F. N. Walcott.
Truxton.	Mohave.	3,997	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	w.	G. A. Dennis.
Tuba.	Coconino.	4,500	12	59.0	- 2.7	90	29	31	5†	49	0.02	- 0.17	0.02	0	1	23	8	0	sw.	H. P. Marble.
Tucson.	Pima.	2,390	32	70.7	- 2.4	102	29	38	4	51	0.32	+ 0.19	0.32	0	1	10	16	5	nw.	University of Arizona.
Tucson (1).	do.	2,380	4	67.6	...	104	29	33	4	58	0.36	...	0.36	0	1	22	7	2	w.	J. M. Rube.
Tucson (2).	do.	2,526	2	69.0	...	103	29	36	4	49	0.71	...	0.71	0	1	23	7	1	w.	U. S. Coast & Geod. Survey.
Vail.	do.	3,421	13	78.8	+ 4.2	99	15	50	3	38	0.00	- 0.02	0.00	0	0	30	1	0	s.	Agent So. Pac. Co.
Walnut Grove.	Yavapai.	3,649	19	...	...	...	...	...	...	...	0.30	+ 0.21	0.30	0	1	...	...	...	s.	J. O. Carter.
Wickenburg.	Maricopa.	2,072	13	69.2	- 0.5	103	30	44	2†	52	0.02	- 0.17	0.02	0	1	29	1	1	s.	Agent S. F. P. & P. R. R.
Willcox.	Cochise.	4,164	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	w.	Agent So. Pac. Co.
Williams.	Coconino.	6,750	13	53.0	- 1.0	85	31	25	8	47	0.00	- 0.90	0.00	0	0	21	10	0	w.	E. J. Nordyke.
Winslow.	Navajo.	4,853	8	62.7	...	98	29	29	4	55	0.00	...	0.00	0	0	30	0	1	w.	J. F. Bauer.
Yuma.	Yuma.	141	32	74.8	- 2.0	105	29	48	4	43	0.90	+ 0.87	0.88	0	3	27	3	1	sw.	U. S. Weather Bureau.
Yuma (1).	do.	150	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	w.	E. L. Crane.
Caliente.	Lincoln.	4,407	2	56.8	...	89	28	29	3	49	0.00	...	0.00	0	0	27	3	1	ne.	Salt Lake Route.
Logan.	Clark.	1,700	5	70.0	...	101	29	40	22	52	0.06	...	0.06	0	1	28	3	0	s.	O. W. Jarvis.

*, †, ‡, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† Also on other dates.

‡ Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for May, 1912. District No. 9, Colorado Valley.*

TABLE 2.—*Daily precipitation for May, 1912. District No. 9—Continued.*

TABLE 2.—*Daily precipitation for May, 1912. District No. 9—Continued.*

Stations.	Watershed.	Day of month.																														Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
<i>Arizona—Contd.</i>																																			
Mesa	Salt									.50	.05																						0.55		
Mohawk Summit	Gila									T.																								T.	
Naco	San Pedro									.60	.05																						0.65		
Natural Bridge	Verde									.60	.05																								
Oracle	San Pedro									.03																								0.03	
Ostorn	do									.36																								0.36	
Paradise	Desert									.20																								0.20	
Parker	Colorado																																		0.58
Payson	Verde																																		0.60
Phoenix	Salt									.12	.46																							0.38	
Phoenix (1)	do										T.	.60																						0.66	
Phoenix (2)	do									.05	.33																						0.38		
Final Ranch	Gila										.18	.48																						0.69	
Pinto	L. Colorado																																		0.43
Prescott	Hassayampa											.69	T.																					0.69	
Quartzsite	Colorado										.43																							0.69	
Redrock	Santa Cruz										.01	.68																					0.69		
Roosevelt	Salt											.36																						0.36	
Sacaton	Gila										.38																							0.38	
St. Johns	L. Colorado																																		0.00
St. Michaels	do																																		T.
Salome	Colorado										.17	.20	T.	T.																				0.37	
San Carlos	Gila																																		0.00
San Simon	do																																		0.00
Seligman	Verde																																		0.40
Sentinel	Gila																																		0.25
Silverbell	Santa Cruz																																		0.01
Snowflake	L. Colorado																																		0.36
Springerville	do																																		0.04
Supai	Colorado																																		0.37
Tempe	Salt																																		0.37
Thatcher	Gila																																		0.37
Tombstone	San Pedro																																		0.71
Truxton	Colorado																																		0.60
Tuba	L. Colorado																																		0.30
Tucson	Santa Cruz																																		0.32
Tucson (1)	do																																		0.36
Tucson (2)	do																																		0.71
Vall	do																																		0.00
Walnut Grove	Hassayampa																																		0.30
Wickenburg	do																																		0.02
Willcox	Desert																																		0.00
Williams	Colorado																																		0.00
Winslow	L. Colorado																																		0.00
Yuma	Colorado																																		0.90
Yuma (1)	do																																		0.06
<i>Nevada.</i>																																			0.00
Caliente	Colorado																																		0.00
Logan	do																																		0.06

* Precipitation included in that of the next measurement.

† Separate dates of falls not recorded.

|| Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—Maximum and minimum temperatures at selected stations for May, 1912. District No. 9, Colorado Valley.

Date.	Wyoming.				Colorado.								Utah.								New Mexico.							
	Daniel.		Green River.		Durango.		Grand Junction.		Gunnison.		Meeker.		Steamboat Springs.		Emery.		Fort Duchesne.		Hite.		Moab.		St. George.		Bloomfield.		Fort Bayard.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1.....	42	26	53	29	71	34	75	48	65	31	50	24	.....	.....	60	43	.....	84	48	83	45	84	49	80	37	75	48	
2.....	43	20	67	26	67	34	69	37	63	26	58	22	.....	.....	61	41	.....	77	50	67	36	63	47	78	36	73	42	
3.....	41	22	37	27	47	31	51	36	60	32	48	28	.....	.....	62	36	48	30	64	43	58	40	63	32	55	37	69	39
4.....	40	26	40	24	52	26	51	34	54	24	46	27	.....	.....	59	33	53	30	65	40	62	38	71	32	64	24	60	29
5.....	45	21	44	25	55	24	58	33	58	22	49	24	.....	.....	63	31	58	25	65	39	65	33	75	42	60	26	65	31
6.....	50	23	49	22	65	31	66	39	55	27	58	42	.....	.....	65	38	64	26	78	44	74	35	82	50	68	28	70	31
7.....	54	25	58	23	67	34	75	45	64	32	66	27	65	25	68	42	73	28	81	52	80	44	81	54	78	30	69	42
8.....	60	27	67	25	65	47	73	49	60	39	65	31	57	22	69	43	61	34	78	50	80	53	79	45	75	44	67	41
9.....	61	25	68	24	59	37	60	46	63	30	54	48	61	26	63	45	67	32	66	51	80	48	71	48	64	44	64	39
10....	55	31	66	31	65	32	66	45	56	27	54	45	68	37	61	40	60	42	78	49	72	43	80	47	66	41	65	40
11....	45	26	53	32	67	36	68	45	64	32	59	30	54	21	62	41	68	32	80	50	77	42	85	50	72	32	72	42
12....	45	27	58	30	62	34	63	43	54	31	50	30	48	32	70	35	60	39	78	56	71	41	80	49	71	36	74	43
13....	45	25	51	26	54	28	51	37	45	27	50	31	44	29	57	30	56	32	63	44	58	36	74	44	61	33	73	45
14....	59	21	42	19	55	34	63	34	56	24	58	21	53	21	51	32	66	24	74	46	67	35	78	34	59	33	67	37
15....	62	25	63	26	68	30	73	40	59	22	67	25	59	30	60	35	75	32	81	43	79	37	83	35	74	27	70	35
16....	68	30	66	27	72	34	77	46	64	26	70	31	67	31	62	31	80	37	86	47	85	37	89	38	75	32	76	40
17....	67	25	74	36	77	36	84	49	79	22	75	30	75	29	75	35	85	35	90	40	91	41	93	40	81	31	80	47
18....	70	30	77	36	80	39	85	54	75	26	78	35	74	30	81	45	84	43	92	51	91	48	94	52	83	38	83	50
19....	65	35	77	44	72	44	82	57	78	30	71	34	68	30	82	47	79	44	93	51	87	56	86	56	88	38	80	52
20....	59	37	71	42	71	39	80	59	69	34	75	42	70	37	78	44	79	49	88	64	88	59	84	64	82	44	79	51
Mns.	56.0	28.0	61.4	31.1	68.3	36.5	72.3	46.4	65.9	31.0	64.1	32.4	64.2	30.2	68.7	39.3	70.9 ^b	36.4 ^a	81.4	51.6	79.2	44.0	81.8	46.5	75.3	38.1	75.5	44.8
Arizona.																												
Date.	Bisbee.		Flagstaff.		Fort Apache.		Grand Canyon.		Parker.		Phoenix.		Prescott.		St. Michaels.		Tucson.		Yuma.		Logan, Nev.							
	Max.		Min.		Max.		Min.		Max.		Min.		Max.		Min.		Max.		Min.		Max.		Min.		Max.			
	76	54	64	36	75	36	54	29	92	55	88	58	73	37	73	38	91	51	92	53	88	57	92	56	83	55	92	42
1.....	72	54	52	36	74	38	50	32	90	52	79	56	60	45	66	55	89	53	90	56	83	55	92	56	83	55	92	42
2.....	61	54	47	25	68	32	52	35	92	52	76	47	56	27	55	28	74	50	82	56	82	56	82	56	73	42	86	46
3.....	63	37	54	24	65	28	55	32	88	57	80	46	60	28	55	28	76	33	87	48	87	48	86	46	86	46	86	46
4.....	70	41	55	24	68	30	54	35	90	53	84	49	67	30	62	38	83	39	89	52	89	52	82	52	82	52	82	52
5.....	70	50	60	26	70	35	56	34	88	57	86	57	67	32	67	32	87	39	80	57	84	44	84	55	84	55	84	55
6.....	70	50	60	26	70	35	56	34	88	57	86	57	67	32	67	32	87	39	80	57	84	44	84	55	84	55	84	55
7.....	69	50	55	28	72	30	58	33	79	56	76	54	63	34	69	31	82	46	75	59	80	46	79	60	80	46	79	60
8.....	68	45	54	25	69	34	55	35	76	53	78	56	65	34	65	34	80	47	64	59	81	46	80	57	81	46	80	57
9.....	62	45	51	29	71	35	54	36	79	53	67	55	64	35	60	32	69	52	76	55	75	45	76	55	75	45	76	55
10....	64	36	59	31	76	36	56	35	88	55	80	52	64	37	65	38	74	44	84	55	84	55	84	55	84	55	84	55
11....	69	46	66	34	68	38	54	33	98	55	87	60	71	41	67	35	85	51	91	60	89	50	91	60	89	50	91	60
12....	72	47	67	32	77	40	56	35	96	54	93	62	73	38	68	33	90	51	97	63	86	60	97	63	86	60	97	63
13....	77	50	60	40	80	40	50	25	93	55	90	63	68	35	67	34	90	54	94	66	84	64	94	66	84	64	94	64
14....	72	50	56	24	73	42	51	26	92	56	85	61	67	37	56	37	83	46	91	62	83	52	91	62	83	52	91	62
15....	73	44	66	25	66	40	55	28	98	54	90	53	73	29	72	29	89	44	96	57	89	46	96	57	89	46	96	57
16....	80	48	71	28	80	36	56	34	102	58	94	59	79	37	74	30	95	45	99	56	92	48	99	56	92	48	99	56
17....	83	52	73	32	85	37	57	35	102	58	97	58	80	37	80	33	99	48	101	58	97	48	101	58	97	48	101	58
18....	85	52	73	34	85	39	59	33	102	59	96	62	75	42	79	37	90	51	92	57	98	55	92	57	98	55	92	57
19....	81	52	67	41	81	47	55	35	100	58	93	68	73	51	79	44	95	64	96	64	96	64	96	64	96	64	96	64
20....	78	56	66	49	80	52	56	34	98	59	94	68	70	46	78	35	100	54	87	60	88	52	93	62	88	52	93	62
21....	79	62	64	46	77	37	56	35	98	62	85	62	68	41	70	59	92	59	81	63	88	51	81	63	88	51	81	63
22....</td																												